

NEW SPECIES OF EXOTIC LEPIDOPTERA.

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Papilio echo, n. sp.—Male. Closely allied to *P. bootes*, Westw. The outlines of all the wings are the same as in *P. bootes*, but the whitish-crimson spots in the tails are absent; the crimson lunated spots on the upper side of the hind wings that are so prominent in the latter are very small, almost wanting. On the under side of the secondaries the lunated spots at the anal angle are smaller and more separated than in *P. bootes*; in the upper median cell there is a faint reddish streak, whilst in *P. bootes* there is a large, well-developed semi-lunated white spot; the two white discal spots on the secondaries are smaller; the red or crimson area at the base of both pairs of wings on the under side is also smaller; the tails are a little longer, but not as long as they are in *P. lama*, Oberth, or *P. janaka*, Moore.

Exp. 5 inch. Hab.: Khasia Hills, British Burmah.

Type in my collection.

This species is very interesting, as belonging to the *bootes* group. It lacks that important character of having the spots in the tails. The type of this species came into my possession through the late Bernhard Gerhard.

Papilio ikusa, n. sp.—Male allied to *P. mencius*, Feld., but not so large; the scaling is less dense on all the wings, which gives it a semi-transparent appearance; the red collar at the back of the head is wanting; the red between the eyes is replaced by black; the dentations of the hind wings are more sharply defined; the tails are not so long and less spatulated, and on the upper side of the hind wings, in the upper, median and lower cells, there is an ill-defined orange spot on each near the outer margin.

The ground colour on the under side is much lighter than above, and the crimson lunated spots that are so prominent in *P. mencius* are here replaced on the submarginal space by seven round orange-coloured spots anal valves are also orange.

Type in my collection.

Exp. 3 in. Hab.: Simoda, Japan.

I received this species from the Rev. Mr. Loomis, of Yokohama, Japan, with the above locality attached to it. In studying this singular form, the only conclusion that I can arrive at is that we have another race

to contend with in the mountains of Central Japan that bears a similar relation to *P. alcinous*, Klug., and *P. menicus*, Feld., as we find in *P. lama*, Ober.; *P. plutonius*, Ober., and *P. janak*, Moore.

Papilio potamonianus, n. sp.—Male allied to *P. laterillianus*, Godt., and *P. cyrnus*, Boisd., but smaller. On the upper side of the fore wings there is a series on the submarginal space of fourteen small canary-green (or yellow) elongated spots; in *P. cyrnus* there are only seven, but they are larger; the outer spots in the discoidal cell are differently shaped, especially the larger spot, which is shorter and broader; there are also two additional small, roundish spots at the inner end of the large spot (sometimes one of these spots is present in the same position in the female of *P. laterillianus*). The hind wings have the outer margin more pointed in the middle than either of the above species, and on the under side the most notable features are the heavy cast of crimson at the base of both pairs of wings, and the very light brown shading on the outer margin of the hind wings.

Exp. $3\frac{1}{2}$ in. Hab.: Upper Congo, W. Africa.

Type in my collection.

I dedicate this handsome specimen to Potamon, the founder of the great schools at Alexandria, in ancient Egypt.

Eudamus Boisduvalii, n. sp.—Male allied to *E. antæus*, Hew. The ground colour on the upper side of all the wings is a uniform brown; in the middle of the costa there is a small orange spot, below this there is a truncate yellowish semitransparent spot; in the limbal area there are three small round spots of the same colour; on the lower submarginal vein just below the limbal area there is a well-defined orange spot.

Hind wings: In the median cell of the outer submarginal space there are two small elongated orange spots; all fringes light buff; the under side of palpi is light brown; thorax and legs reddish-brown; abdomen buff, with a faint brown lateral band. Under side of fore wings the same as above, but much lighter; on the under side of hind wings the ground colour is a rich chocolate-brown, and across the disc there are two silvery-white bars, in the outer bar the two orange spots so conspicuous above are here repeated.

Exp. $2\frac{1}{2}$ in. Hab.: Suapure, Venezuela, S. America.

Type in my collection.

Captured on Nov. 4th, 1899, by Mr. Edw. A. Klages. All the species of Lepidoptera so far described from Suapure, Venezuela, S. A.,

by the writer, were collected by Mr. Klages, who endured much privation and suffering during his expedition along the Orinoco river, which hindered him greatly in procuring a large number of specimens; nevertheless, he can rest with the satisfaction that the number of species collected by him more than repay the difficulties encountered.

Achlyodes heros, n. sp.—Male. This species is intermediate between *A. sebalus*, Fahr., and *A. melander*, Cram.; the ground colour is much lighter brown than either of the above-mentioned species on the upper side; also the discal black bands are more widely separated; the outer marginal band is very narrow.

On the upper side of the hind wings the most conspicuous character is the large bright buff lunated spots in the anal angle. On the under side of the fore wings the ground colour is much paler than above; the markings are very close to those of *A. melander*. Under side of the hind wings much the same as in *A. melander*, except that the anal angle is buff instead of orange, and the abdominal margin is also orange in colour, which extends to the base of the wing.

Exp. one inch and seven-eighths. Hab.: Suapure, Venezuela.

Type in my collection.

Sphingicampa Smithii, n. sp.—Male. Head pale buff; antennæ brown; upper side of the thorax pale brown, which colour grows lighter as it extends towards the tip of the abdomen, where it is a pale buff on the last three joints.

Fore wings of a uniform chestnut brown along the costal area; the outer margin and inner space to the base of the wing have a purplish cast, and through this space there are three pale brown bars, beginning at the lower side of the discal cell, and extending to the inner margin. The hind wings are pale brown, the basal area is much lighter. Under side of the fore wings is yellowish, with a suffusion of brown; the costal and outer margins are tinted with purple; under side of the hind wings is uniform pale buff; the thorax, abdomen and legs are also buff.

Exp. two and one-eighth inches. Hab.: Rio Janeiro, Brazil, S. America.

Type in my collection.

This fine moth was captured by Herbert T. Smith in the latter part of November, 1888, and Mr. Smith has informed me that this specimen was the only example seen during all his rambles in South America.